

Bereskin & Parr

INTELLECTUAL PROPERTY LAW

November 22, 2005

Shawn D. Jacka B.Sc. (Comp. Sci.), LL.B.
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Our Reference: 13999-1

PETITION TO THE DIRECTOR TO WITHDRAW HOLDING OF ABANDONMENT UNDER 37 CFR 1.181

By Email: fred.ferris@uspto.gov

Honorable Commissioner for Patents
P. O. Box 1450
Alexandria, Virginia 22313-1450
U.S.A.

ATTENTION: FRED O. FERRIS III, EXAMINER

Dear Sir:

Re: AUTOMATIC ADAPTIVE DIMENSIONING FOR CAD SOFTWARE
United States Patent Application No. 09/589,758
Filing Date: 06/09/2000
Applicant: Richard R. Haws et al.
Group Art Unit: 2128

We hereby request that the Director withdraw the holding of abandonment based on failure to timely file corrected drawings. As set out below, the Applicant submits that the present application is not abandoned and all outstanding requirements have been timely fulfilled. The undersigned understands from discussions with the Examiner, Fred Ferris, that this Petition is to be made pursuant to 37 CFR 1.181. The relevant facts are set out below.

The Notice of Allowability dated May 25, 2005 (copy enclosed as Tab A) incorrectly indicates that "Corrected drawings must be submitted pursuant to paper no./mail date 8/27/04". By way of background, paper no./mail date 8/27/04 was an Office Action (copy of cover sheet, Office Action Summary and p. 2 are enclosed as Tab B) indicating that the drawing submitted in a Response filed June 4, 2004 (copy enclosed as Tab C) satisfied the outstanding drawing requirements.

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TORONTO MISSISSAUGA WATERLOO MONTRÉAL

The undersigned promptly and diligently contacted Examiner Ferris by telephone on June 7, 2005, and received confirmation from the Examiner that the Notice of Allowability contained a clerical error and that no drawing requirements or other requirements were outstanding. The Examiner also indicated that he would take the necessary steps to ensure that the due date would be removed and would not cause any delays in the issuance of the patent in this matter.

When the issue fees were filed on July 29, 2005, a covering letter (copy enclosed as Tab D) was also filed confirming the June 7, 2005 conversation with the Examiner and confirming that there were no outstanding drawing requirements.

Under the circumstances, the holding of abandonment is in error. The Applicant has diligently fulfilled all outstanding obligations. The drawing requirement which incorrectly forms the basis for the holding of abandonment was satisfactorily addressed in the Response filed June 2, 2004. Accordingly, it is respectfully submitted that the holding of abandonment should be withdrawn and the application processed for issuance as promptly as possible.

Pursuant to s. 711.03 (c) I of the MPEP, it is submitted that no fees are required for this Petition. If the Applicant's understanding regarding fees is incorrect, the Patent Office is authorized to charge any government fees to our deposit account no. 02-2095.

This statement is made by the undersigned who declares that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further, that these statements are made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of the Title 18 of the U.S. Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,



Shawn D. Jacka
Registration No. 43,379

SDJ/as
Enc.

TAB A

Notice of Allowability

Application No.

09/589,758

Examiner

Fred Ferris

Applicant(s)

HAWS ET AL

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 27 August 2004.
2. ☒ The allowed claim(s) is/are 8-18, Now renumbered as 1-11.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 8/27/04.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 9/23/05
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

JEAN R. POMERE
PRIMARY EXAMINER

TAB B



UNITED STATES PATENT AND TRADEMARK OFFICE

177

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/589,758	06/09/2000	Richard R. Haws	1015-2/MBE	1570

7590 08/27/2004
Mark B Eisen
c/o Dimock Stratton Clarizio
Suite 3202 Box 102
20 Queen Street West
Toronto, ON M5H 3R3
CANADA

RECEIVED
SEP 08 2004
DIMOCK STRATTON LLP

EXAMINER
FERRIS III, FRED O
ART UNIT
PAPER NUMBER

2128

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

RECEIVED VIA COURIER

SEP 15 2004

BERESKIN & PARR

Office Action Summary

Application No.

09/589,758

Applicant(s)

HAWS ET AL.

Examiner

Fred Ferris

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 04 June 2004.

2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

D.P. Fmt. Nov. 27/04
N.M.

Disposition of Claims

4) ☒ Claim(s) 7-18 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 7-18 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 04 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 07/04/04.

4) ☐ Interview Summary (PTO-413) Paper No(s). _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-18 have been presented for examination based on applicant's amendment filed on amendment filed on 4 June 2004. Applicants have cancelled claims 1-6. New claims 7-18 have been rejected by the examiner.

Response to Arguments

2. Applicant's arguments filed 4 June 2004 have been fully considered.

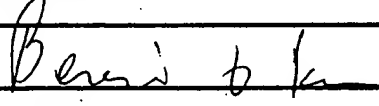
Regarding applicant's response to objection to the drawings: Applicant's have submitted a corrected drawing of Figure 1 that includes a "Prior Art" legend. Accordingly, the examiner withdraws the objection to the drawings.

Regarding applicant's response to 112(1): Applicants argue that the specification provides sufficient enabling support for the claims and have submitted affidavits from a Professor Desmond Walton and Mr. David Borean in support of these arguments. The examiner finds these arguments non-persuasive for the following reasons. First, the statements made by Professor Walton are merely conclusory statements relating to the general technology and provide no indication of specifically how a skilled artisan, or in the case of Mr. Walton's statements, how a third year computer science student, would actually implement the claimed subject matter based on the information provided in the specification. Second, the statements made by Mr. Borean on page 3, line 1 of the declaration indicate that certain "steps" were described to him and that he was shown a series of "diagrams" relative to the invention, but he does not indicate where in the specification these steps or diagrams are recited or how they were used to implement

TAB C

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	09/589,758
	Filing Date	06/09/2000
	First Named Inventor	Richard R. Haws
	Art Unit	2128
	Examiner Name	FERRIS III, Fred O.
Total Number of Pages in This Submission	Attorney Docket Number	13999-1

ENCLOSURES (check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input checked="" type="checkbox"/> Affidavits/declaration(s) David Borean; Desmond Walton <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input checked="" type="checkbox"/> Petition (2 month extension) <input type="checkbox"/> Petition to Convert to a Provisional Application <input checked="" type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):
Remarks		
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT		
Firm or Individual name	Berskin & Parr	
Signature		
Date	June 2, 2004	

CERTIFICATE OF TRANSMISSION/MAILING		
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.		
Typed or printed name		
Signature		Date

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Appl. No. : 09/589,758 Confirmation No. 1570
Applicant: : Richard R. Haws et al.
Filed : 06/09/2000
Title : AUTOMATIC ADAPTIVE DIMENSIONING
FOR CAD SOFTWARE
Examiner : FERRIS III, FRED O.
Docket No. : 13999-1
Customer No. : 1059

Honorable Commissioner for Patents
P. O. Box 1450
Alexandria, Virginia 22313-1450

June 2, 2004

AMENDMENT

Sir:

This correspondence is in response to the office action of January 15, 2004. The applicant is simultaneously submitting a petition for a two month extension of time to file this response.

The applicant is also submitting an appointment of agent form, as well as a Supplemental Information Disclosure Statement.

Amendments to the Claims are reflected in the listing of claims, which begins on page 2 of this paper.

An Amended Figure 1 is included as the last page of this paper.

Remarks/Arguments begin on page 8 of this paper.

5 **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

List of Claims

- 10 1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
- 15 4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
- 20 7. (New) A method for creating a computer aided design drawing formed of a plurality of target objects, comprising the steps of:
 - (a) inputting first coordinate position data;
 - (b) displaying a first target object corresponding to the first coordinate position data;
 - 25 (c) creating first dimension annotation data correlated to the first coordinate position data;
 - (d) displaying a first dimension annotation correlated to the first dimension annotation data; and
 - (e) cross-associating the first target object with the first dimension annotation, wherein as a result of such cross-association:
 - 30 (i) a change in the first coordinate position data will effect a correlated change in the first dimension annotation data; and

- 5 (ii) a change in the first dimension annotation data will effect a correlated change in the first coordinate position data.
8. (New) The method of claim 7 further comprising the steps of:
- (f) subsequent to step (e), inputting further coordinate position data corresponding to at least one further target object;
- 10 (g) displaying the further target object in accordance with the further coordinate position data;
- (h) creating further dimension annotation data correlated to the further coordinate position data;
- (i) displaying a further dimension annotation correlated to the further dimension annotation data
- 15 (j) cross-associating the at least one further target object with the further dimension annotation, wherein as a result of such cross-association:
- (i) a change in the further coordinate position data will effect a correlated change in the further dimension annotation data; and
- 20 (ii) a change in the further dimension annotation data will effect a correlated change in the further coordinate position data;
9. (New) The method of claim 8, further comprising the steps of:
- (k) determining if the at least one further target object intersects the first target object
- 25 (l) wherein if the at least one further target object intersects the first target object into a first segment and a second segment:
- (i) calculating first segment coordinate position data;
- (ii) calculating second segment coordinate position data;
- (iii) creating first segment dimension annotation data correlated to the first segment coordinate position data;
- 30 (iv) displaying a first segment dimension annotation correlated to the first segment annotation data;
- (v) creating second segment dimension annotation data correlated to the second segment coordinate position data;

- 5 (vi) displaying a second segment dimension annotation correlated to the second segment annotation data;
- (vii) cross-associating the first segment with the first segment dimension annotation; and
- (viii) cross-associating the second segment with the second segment dimension annotation.
- 10
10. (New) The method of claim 8, further comprising the steps of:
- (m) determining if the at least one further target object is adjacent to any other target object.
11. (New) The method of claim 10, further comprising the steps of:
- 15 (n) inputting modifications to the further coordinate position data;
- (o) displaying the further target object in accordance with the modified further coordinate position data;
- (p) creating modified further dimension annotation data correlated to the modified further coordinate position data; and
- 20 (q) displaying a modified further dimension annotation correlated to the further dimension annotation data.
12. (New) The method of claim 11, further comprising the steps of:
- (r) if the at least one further target object is adjacent to the first target object:
- 25 (i) modifying the first coordinate position data in correlation to the modified further coordinate position data;
- (ii) displaying the first target object in accordance with the modified first coordinate position data;
- (iii) modifying the first dimension annotation data correlated to the modified first coordinate position data;
- 30 (iv) displaying a first dimension annotation correlated to the modified first dimension annotation data
13. (New) A method for creating a computer aided design drawing formed of a plurality of target objects, comprising the steps of:

- 5 (a) inputting coordinate position data for a new target object;
- (b) displaying the new target object corresponding to the coordinate position data;
- (c) creating dimension annotation data correlated to the coordinate position data;
- 10 (d) displaying a dimension annotation correlated to the dimension annotation data;
- (e) cross-associating the new target object with the dimension annotation, wherein in said cross-association:
- (i) a change in the coordinate position data will effect a correlated change in the dimension annotation data; and
- 15 (ii) a change in the dimension annotation data will effect a correlated change in the coordinate position data;
- (f) repeating steps (a) through (e) for at least one additional target object;
- (g) wherein all of steps (a) through (e) are completed for one target object prior to inputting coordinate position data for any additional target object.
- 20
14. (New) The method of claim 13, wherein step (a) further comprises the steps of:
- (h) determining whether the new target object intersects any other target object; and
- 25 (i) wherein if the new target object intersects at least one other target object so as to create a first segment and a second segment:
- (i) calculating first segment coordinate position data,
- (ii) calculating second segment coordinate position data,
- 30 (iii) creating first segment dimension annotation data correlated to the first segment coordinate position data,
- (iv) displaying a first segment dimension annotation correlated to the first segment annotation data,
- (v) creating second segment dimension annotation data correlated to the second segment coordinate position data,
- 35

- 5 (vi) displaying a second segment dimension annotation correlated to
 the second segment annotation data,
 (vii) cross-associating the first segment with the first segment
 dimension annotation, and
 (viii) cross-associating the second segment with the second segment
10 dimension annotation.

15. (New) The method of claim 13, further comprising the step of:

- (j) determining if the new target object is adjacent to any other target
 object.

16. (New) The method of claim 15, further comprising the steps of:

- 15 (k) selecting a target object;
 (l) inputting modified coordinate position data for the selected target
 object;
 (m) displaying the selected target object in accordance with the modified
 coordinate position data;
20 (n) modifying the dimension annotation data corresponding to the selected
 target object, the modification correlated to the modified coordinate
 position data; and
 (o) displaying a modified dimension annotation correlated to the modified
 dimension annotation data.

25 17. (New) The method of claim 16, further comprising the steps of:

- (p) if the selected target object is adjacent to at least one other adjacent
 target object:
 (i) adjusting the coordinate position data corresponding to the
 adjacent target object, wherein the adjustment is correlated to
30 the modified coordinate position data;
 (ii) displaying the adjacent target object in accordance with the
 adjusted coordinate position data;

- 5 (iii) adjusting the dimension annotation data corresponding to the adjacent target object, wherein the adjustment is correlated to the adjusted coordinate position data; and
- (iv) displaying a dimension annotation correlated to the adjusted dimension annotation data.
- 10 18. (New) The method of claim 13, wherein step (a) further comprises the steps of:
- (q) determining whether the new target object superposes any other underlying target object; and
- 15 (r) wherein if the new target object superposes an underlying target object:
- (i) creating at least one on-center dimension annotation data correlated to both the coordinate position data of the new target object and the coordinate position data of the underlying target object,
- 20 (ii) displaying an on-center dimension annotation correlated to the on-center annotation data,
- (iii) cross-associating the new target object with the on-center dimension annotation, and
- 25 (iv) cross-associating the underlying target object with the on-center dimension annotation.

REMARKS/ARGUMENTS

In the Drawings

The Examiner has requested that Figure 1 be amended by adding the heading "Prior Art". Accordingly, Figure 1 has only been revised to include the heading "Prior Art". A copy of revised Figure 1 is enclosed. No new matter has been added.

Claim Rejections – 35 U.S.C. 112

Claims 1-6 have been rejected, pursuant to 35 U.S.C. 112, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains to make and/or use the invention.

The examiner has suggested that the application "discloses no algorithms, flowcharts, or techniques for actually generating dimensions, creating a target object, or setting parameters of dimension annotations." The examiner has further stated that "matter that is critical to the practice of the claimed invention for supporting the limitations of the claims is absent from the specification." Furthermore, the Examiner has indicated that claims 1-6 have omitted essential steps. The Examiner has concluded that "one skilled in the art would not know how to make and/or use the claimed invention without undue experimentation." The applicant respectfully disagrees with the Examiner's conclusion that the specification is insufficient.

The applicant respectfully submits that the specification was sufficient for one skilled in the art to make and use the invention as claimed in original claims 1-6. The applicant submits that a programmer familiar with CAD programming at the time of filing the present application would be able to create the technology claimed in claims 1-6. The type of information contained in the AutoCAD user's guide, for example, would be generally known by or available to CAD programmers at the time of filing. In the context of information which was generally known to one skilled in the art, it is submitted that the specification is and was sufficient and complete to enable such a programmer to make and use the claimed invention.

Furthermore, while claims 1 – 6 as originally filed have been cancelled without prejudice (the "Original Claims") and new claims 7 - 18 have been added (the "Amended Claims"), it is submitted that the specification provides sufficient support for both the Original and the Amended Claims. No new matter has been added in adding these additional claims.

In support of the applicant's contention, the applicant has submitted the affidavit of Professor Desmond Walton, a computer science professor with extensive experience in computer graphics and CAD programming. The Professor has reviewed the application and the Original and Amended Claims and has concluded that the specification is sufficient. In paragraphs 14, 15 and again in paragraph 17, Prof. Walton states that:

14. In my view, as of June 9, 2000, **the description of the technology in the patent application is and was sufficiently full and complete, clear and concise to enable the programming and use of software capable of performing the methods as claimed in both the Original Claims and the Amended Claims. While programming typically requires routine debugging, no undue or unreasonable experimentation would be needed to reproduce the technology described in the application.**
15. It should be understood that it is not typically required to provide excessively detailed information about a software program, in order for another programmer to reproduce it. In many cases, **providing the functionality, or the way the software performs, is sufficient. The present patent application clearly describes the features and functions of the software as defined in the Original and Amended Claims, sufficiently for another programmer to reproduce and use it.**
17. Based on my experience as a professor, I am well aware of the skills and abilities of computer science students within our department. I am specifically of the view that as of June 9, 2000, **computer science students at the University of Manitoba during or at the completion of the third year of their Bachelor's degree (typically a four year program), upon reading the patent application would be able to program and use the software as claimed in the Original and Amended Claims, without needing to obtain**

additional information from the inventors and without unreasonable experimentation. **[emphasis added]**

The professor's conclusion that the specification provides sufficient support for a programmer to make and use the technology claimed in the Original and Amended claims is further supported by the enclosed Affidavit of David Borean, a programmer who at the request of one of the applicants was able to produce software described in the specification and claimed in the Original and Amended claims, prior to the filing date of the application.

Mr. Borean states that his programming "... work on the Software Application was routine and straightforward. Upon completion, the Software Application provided the desired Automatic Adaptive Dimensioning functionality." (para. 10). Furthermore, Mr. Borean recollected that the "patent application clearly describes the Automatic Adaptive Dimensioning method and technology, which is claimed in the Original and Amended Claims, and is consistent both in terms of scope and content with the information Mr. Haws provided to me in February of 2000." (para. 17)

In his view, "... as of June 9, 2000, the description of the technology in the patent application is and was sufficiently full and complete, clear and concise to enable [him] or any competent programmer to program and use software capable of performing the methods as claimed in both the Original Claims and the Amended Claims. ... [His] programming of the Software Application was straightforward and did not require any undue or unreasonable experimentation." (paras. 19 & 21)

Accordingly, in view of the applicants' submissions and the Affidavit evidence of Professor Walton and Mr. Borean, it is respectfully submitted that the Examiner's objection based on 35 U.S.C. 112 is unfounded and should be withdrawn.

Claim Rejections – 35 U.S.C. 102 & 103

Claims 1-6 have been rejected, pursuant to 35 U.S.C. 102(b), as being anticipated by U.S. Patent No. 6,232,985, issued to Chase et al., and further as being anticipated by U.S. Patent No. 6,256,595 issued to Schwalb et al.

Claims 1-6 have further been rejected, pursuant to 35 U.S.C. 103(a), as being obvious in view of the *AutoCAD User's Guide* in combination with U.S. Patent No. 6,232,985, issued to Chase et al.

Claims 1-6 have been cancelled. New claims 7 – 18 have been added which distinguish the invention over the cited art.

New independent claim 7 includes in step (e), cross-associating the first target object with the first dimension annotation, wherein as a result of such cross-association: (i) a change in the first coordinate position data will effect a correlated change in the first dimension annotation data; and (ii) a change in the first dimension annotation data will effect a correlated change in the first coordinate position data.

One of the advantages of cross-associating each object with its corresponding dimension annotation is that the accuracy of each dimension annotation with respect to its object is maintained. Any modification to one, will promptly effect a corresponding modification to the other. None of the cited prior art is capable of providing this advantage. Similarly, the cross-association limitation of step (e) in claim 7 is neither shown nor suggested in any of the cited references.

It is submitted that contrary to the Examiner's assertion, Chase does not teach or suggest even a uni-directional association (let alone the claimed bi-directional cross-association) between an object and a corresponding dimension annotation. There is no suggestion in Chase that objects and dimension annotations are associated such that a change in one effects a change in the other. Chase merely teaches a system for creating dimension annotations for portions or all of an image, upon the request of the user and after the image has been created (See eg. col.3, lns 6-65). Contrary to the Examiner's argument, Chase does not discuss or consider the modification of an object, or the corresponding modification of a dimension annotation in response to the modification of an object.

Similarly, Schwalb also teaches a system for calculating and displaying the dimension between one or two part entities (eg. loop centers, circles, arcs, bend lines, etc.) which have been selected by the user, after the image has been created (See eg. col. 6, lns 50 – 51 and col.7, lns. 51-55). As with Chase, Schwalb does not teach even uni-directional association between an object and a corresponding dimension annotation such that a change in one effects another.

Contrary to the Examiner's conclusion, changes to a part entity do not effect a change to the corresponding dimension information. As part of the process of creating and drawing a dimension, "the dimension object also determines whether the data is defective, eg., **the attachment points disappear due to part data changes such as adding holes.**" (emphasis added, col. 20, lns. 28-30) This step is carried out once the user has initiated the dimensioning process and has selected the part entities. If a change to a part entity effected a change to the dimension, it would be unnecessary to recheck the data for inaccuracies.

Furthermore, no ability is provided in Schwalb for directly amending the dimension information, and as a result Schwalb does not provide for directly amending the dimension information and consequently effecting a change in the part entities. As a result, Schwalb does not provide for the bi-directional cross-association as claimed in new claim 7.

The Examiner has asserted that "it is an inherent feature to the AutoCAD program" that it automatically modifies "the length/position of an object in response to a change in the dimension annotation", and cites Chase in support of this proposition (col. 2, lns.29-33). Contrary to the Examiner's assertion, the cited passage in Chase merely states "...the host application program 118 comprises the AUTODCAD program sold by Autodesk, Inc., the assignee of the present invention. Also in the preferred embodiment, the QDim function 120 is an ObjectARX applet or add-in for use with the AUTOCAD program 118". Nothing in the cited passage suggests that a change to a dimension annotation will effect a correlated change to a corresponding object. Furthermore, nothing in the AutoCAD 14 manual previously submitted by the applicants teaches or suggests such functionality.

The Examiner has also suggested that Jackson teaches an association between each objects and a corresponding dimension entity, such that a modification to an object effects a correlated change to the dimension entity. With respect, the applicants disagree with this interpretation of Jackson. At most, Jackson teaches the uni-directional association of dimension entities to corresponding objects: "...linear dimension entities defining entities of CAD objects may be simply and conveniently modified, and modifications automatically applied to the chains of related dimension entities and the corresponding CAD components." (col. 8, Ins. 21-25) Nowhere does Jackson teach or suggest that modifying an object would effect a correlated modification to the corresponding dimension entity.

It is also respectfully submitted that it would not be obvious to modify any of the cited prior art to arrive at the technology as claimed. The mere fact that a motivation exists to improve existing technology, is not sufficient support for a finding of obviousness. Absent a specific reason for modifying existing technology in a particular way to arrive at the claimed technology, any claim of obviousness is merely hindsight reconstruction which is impermissible.

As a result, it is submitted that the subject matter of new claim 7 and all claims dependent thereon (claims 8 - 12) are neither anticipated by nor obvious in view of either Chase or Schwalb, or the combination of AutoCAD 14 and Jackson.

With respect to new claim 8, this claim introduces the limitation that the steps of inputting and displaying a first target object and creating and displaying a corresponding dimension annotation and creating a cross-association (steps (a) to (e) in new claim 7) are completed **prior to inputting another target object**. This functionality, in combination with the cross-association identified in element (e) of claim 7 ensures that an image is accurately dimensioned throughout its development, as each object is added to the image and as modifications are made.

None of the cited prior art teaches or suggests such functionality or provides the resulting accuracy advantages of the claimed invention. Specifically, as noted

above, Chase and Schwalb both teach the creation of dimension annotations only after the image (composed of multiple objects) has been created, and only upon the request of the user. Accordingly, it is respectfully submitted that the subject matter of new claim 8 and all claims dependent thereon (claims 9 - 12) are neither anticipated by nor obvious in view of either Chase or Schwalb, or the combination of AutoCAD 14 and Jackson.

New claim 9 introduces limitations relating to determining intersection between target objects. Support for these limitations are found for example at p.8, Ins. 9-14 and Figs. 7 & 8. For reasons noted above, claim 9 depends from an allowable claim and is accordingly also allowable.

New claim 10 introduces the limitation of determining if a target object is adjacent to any other target object. Support for this limitation is found for example at p.7, Ins. 4-6. For reasons noted above, claim 10 depends from an allowable claim and is accordingly also allowable.

New claims 11 and 12 introduce limitations relating to modifying a target object. Support for these limitations are found for example at p. 6, Ins 24 - p.7, Ins. 6; and p. 8, Ins. 21-28, and Fig. 10. For reasons noted above, claims 11 and 12 depend from an allowable claim and are accordingly also allowable.

With respect to new independent claim 13, this claim also contains the cross-association limitation, together with the limitation that the steps of inputting and displaying a first target object and creating and displaying a corresponding dimension annotation and creating a cross-association (steps (a) to (e) in new claim 7) are completed **prior to inputting another target object**. Accordingly, for reasons similar to those noted above with respect to claims 7 and 8, claim 13 and all claims dependent thereon (claims 14-18) are neither anticipated by nor obvious in view of the cited art.

New claim 14 introduces limitations relating to determining intersection between target objects. As noted above, support for these limitations are found for

Appl. No. 09/589,758

Amdt. dated June 2, 2004

Reply to Office action of January 15, 2004

example at p.8, Ins. 9-14 and Figs. 7 & 8. For reasons noted above, claim 14 depends from an allowable claim and is accordingly also allowable.

New claim 15 introduces the limitation of determining if a target object is adjacent to any other target object. As noted above, support for this limitation is found for example at p.7, Ins. 4-6. For reasons noted above, claim 15 depends from an allowable claim and is accordingly also allowable.

New claims 16 and 17 introduce limitations relating to modifying a target object. As noted above, support for these limitations are found for example at p. 6, Ins 24 - p.7, Ins. 6; and p. 8, Ins. 21-28, and Fig. 10. For reasons noted above, claims 16 and 17 depend from an allowable claim and are accordingly also allowable.


New claim 18 introduces limitations relating to determining whether a target object superposes any other target object. As noted above, support for these limitations are found for example at p. 6, Ins. 6-10; p. 8, Ins. 9-15 and Figs. 8 & 9. For reasons noted above, claim 18 depends from an allowable claim and is accordingly also allowable.

The applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

BERESKIN & PARR

By



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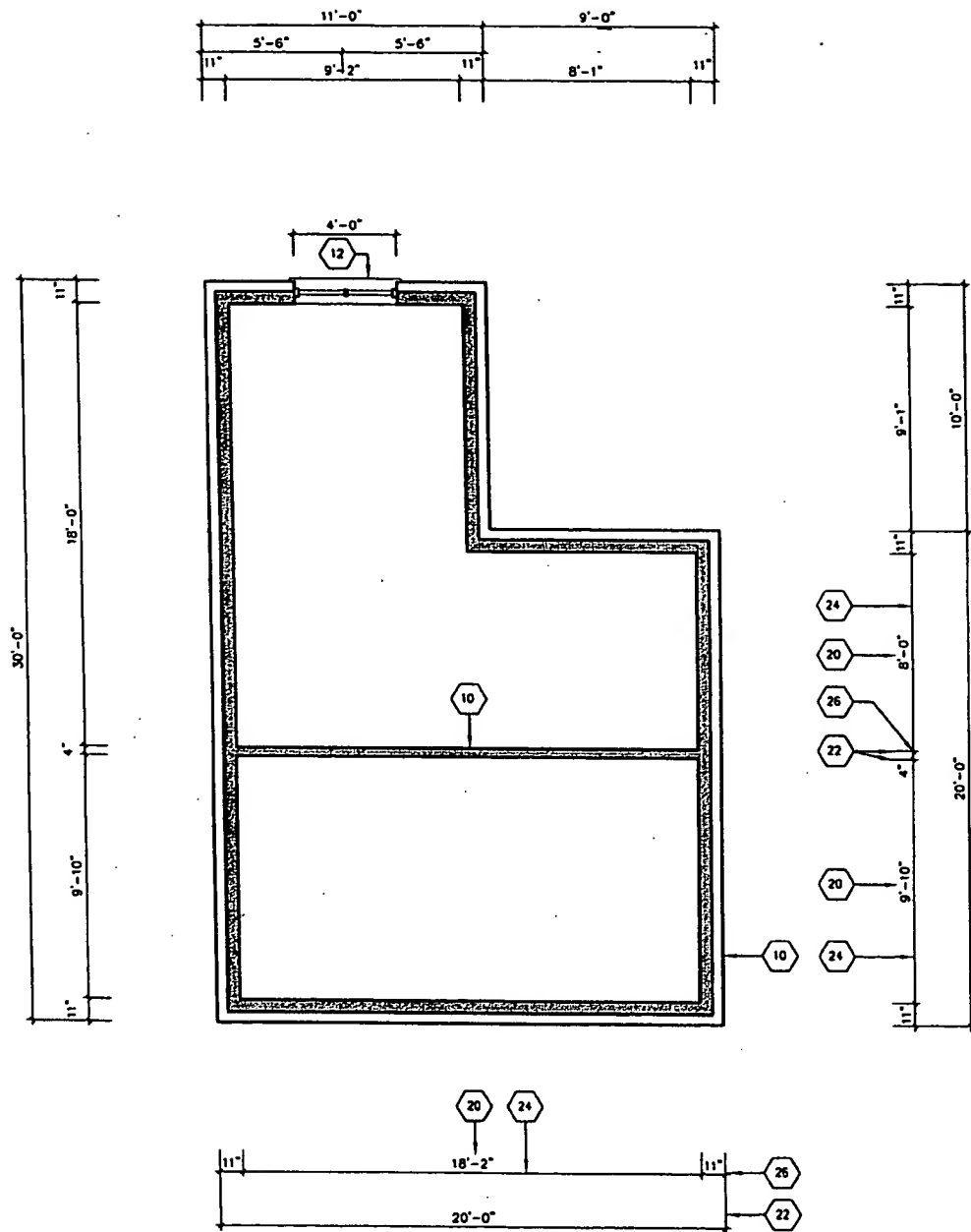


figure 1
(prior art)

TAB D

Bereskin & Parr

INTELLECTUAL PROPERTY LAW

July 29, 2005

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Your Reference: 09/589,758
Our Reference: 13999-1

ISSUE FEE

The Commissioner of Patents & Trademarks
P.O. Box 1450
Alexandria, VA
22313-1450 U.S.A.

Attention: Box Issue Fee

Dear Sir:

Re: **AUTOMATIC ADAPTIVE DIMENSIONING FOR CAD SOFTWARE**
United States Patent Application No. 09/589,758
Filed: 06/09/2000
Art Unit: 2128
Applicant: Richard R. Haws et al.

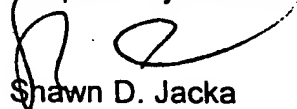
This correspondence is responsive to the Notice of Allowability dated May 25, 2005 for the above-identified patent application. As required, we enclose the Issue Fee Transmittal form.

A continuation application is being filed simultaneously under separate cover.

The undersigned spoke with the Examiner on June 7, 2005 and received confirmation that the formal drawing filed on June 4, 2004 was acceptable (as indicated in the Office Action dated August 27, 2004) and that there are no outstanding formal drawing (or any other) requirements. Examiner Ferris confirmed that the indication on the Notice of Allowance that formal drawings were required was marked incorrectly.

The government fee of \$700.00 is included in our cheque no. _____. Please charge any deficiencies or credit any overpayments to our deposit account no. 02-2095.

Respectfully submitted,



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